

Carex aestivalis and *Carex lurida* var. *gracilis* on the Glaciated Allegheny Plateau

ROBERT T. CLAUSEN

Alma Hill, in Allegany County, is one of the highest hills (elev. 775 m.) in western New York. The flora and fauna both are strongly characteristic of the Canadian Life Zone. Birds such as the Olive-backed Thrush, Winter Wren, Blue-headed Vireo, and Junco seem to be common breeding species there. *Lycopodium annotinum* var. *integrifolium*, *Dryopteris Phegopteris*, *Schizachne purpurascens*, and *Milium effusum* further suggest the northern character of the region. On the wooded slopes, *Carex radiata*, a species which is rare in central New York, is frequent. *Carex aestivalis*, even rarer in central New York, occurs in dry rocky woods near the western base of the hill. Along a brook, also on the west side of the hill, at an elevation of 580 m., *Carex lurida* var. *gracilis* occurs.

Data at hand indicate that both *Carex aestivalis* and *C. lurida* var. *gracilis* are infrequent and local on the Glaciated Allegheny Plateau. In the herbarium of Cornell University, neither sedge is represented from this plateau in Pennsylvania or Ohio. Mackenzie (1931-35) did not mention having seen specimens of either from Ohio, although it is possible that both may eventually be discovered in the northeastern part of that state.

House (1924) recorded the range of *C. aestivalis* in New York as "Dutchess county, the Catskill mountains and Otsego county, southward." The two localities in Otsego County, Worcester and East Worcester, are both on the Glaciated Allegheny Plateau. To these may be added the following localities from which specimens are available in the herbarium of Cornell University: woods, 4 Town Schoolhouse, Sempronius, 3 miles east of Moravia, Cayuga County, July 11, 1882, herbarium Charles Atwood; Dresserville Gulf, town of Sempronius, Cayuga County, September 12, 1896, herbarium Atwood; dry steep, shaded, sandy-clay bank, "The Narrows" Slaterville to Caroline Center, Caroline, Tompkins County, July 13, 1919, *A. J. Eames, K. M. Wiegand, & L. F. Randolph 11594*; roadside slope, wooded ravine just east of Bald Hill, Caroline, Tompkins County, July 2, 1936, *M. W. Allen 19329*; dry rocky woods near base of western slope of Alma Hill, Allegany

County, June 18, 1939, *R. T. C. 3917*; and wooded bluff by creek, Sinclairville, June 24, 1924, *K. M. Wiegand 15286*. A further locality, reported by Zenkert (1934), is South Wales in Erie County. Hamburg, also cited by Zenkert, is on the Great Lakes Plain. From just south of the terminal moraine, in the Allegany State Park, House and Alexander (1927) reported *C. aestivalis* as frequent.

House (1924) reported *Carex Baileyi* (*C. lurida* var. *gracilis*) southward to Greene and Herkimer Counties, also from Campville, Tioga County. House and Alexander (1927) reported this same variety as common in the Allegany State Park, an unglaciated area. On the Glaciated Allegheny Plateau, where typical *Carex lurida* is common, the var. *gracilis* seems to be rare. Records are available only from Allegany, Chemung, and Tioga Counties. The following two collections are in the herbarium of Cornell University: open swaly clearing in white oak woods, Comfort Hill, Chemung County, June 29, 1938, *S. J. Smith & Harvey Scudder 933*; and woods along brook on west side of Alma Hill, Allegany County, June 18, 1939, *R. T. C. 3920*. In this herbarium there are several specimens intermediate between *Carex lurida* var. *typica* and var. *gracilis*. These are from Rutland County, Vermont; Norfolk County, Massachusetts; Hartford County, Connecticut; Albany and Fulton Counties, New York; and Haywood County, North Carolina. These support Wahl's (1940) statement that "*Carex Baileyi* (*C. lurida* var. *gracilis* [Boott] Bailey) is very closely related to *C. lurida*." In counting chromosomes of *Carex lurida*, Wahl found haploid numbers of 32 and 33 for three plants of the typical variety. A plant of var. *gracilis* was $n = 34$. Wahl's data for various *Carices* reveal that plants which are morphologically similar and which certainly belong to the same taxonomic species may differ in having one or two chromosomes more or less. Accordingly, the number 34, mentioned above, does not strengthen the case for treating var. *gracilis* as a species, since typical *C. lurida* already is known to be either $n = 32$ or 33. Though found primarily in the northern part of the range of the species and usually at higher altitudes, the var. *gracilis* can not be regarded as a strongly geographical entity, since its distribution lies entirely within the area of typical *C. lurida*.

Literature Cited

- House, H. D. 1924. Annotated list of the ferns and flowering plants of New York State. N. Y. State Museum Bull. 254. p. 1-759.
- House, H. D. and Alexander, W. P. 1927. Flora of the Allegany State Park Region. New York State Museum Handbook 2. p. 1-225. illus.
- Mackenzie, K. K. 1931-35. Cyperaceae-Cariceae. N. Am. Flora 18: 1-478.
- Wahl, Herbert A. 1940. Chromosome numbers and meiosis in the genus *Carex*. Am. Jour. Bot. 27: 458-470. t. 1-2.
- Zenkert, C. A. 1934. The flora of the Niagara Frontier Region. Bull. Buffalo Soc. Nat. Sci. 16: 1-328.

CORNELL UNIVERSITY
ITHACA, N. Y.

Papers on the Flora of Alaska—I.
The Genus *Cicuta*

J. P. ANDERSON

The species of *Cicuta* are of great importance on account of their very poisonous properties. Losses of cattle directly attributed to poisoning by *C. douglasii* (DC.) Coult. & Rose have occurred in southeastern Alaska. There have been rumors of losses elsewhere.

In a recent study, Mathias and Constance (1) have reduced the American species of the genus to seven. Of these, three occur in Alaska. The following key covers these three species:

Fruit longer than wide, leaflets 2-4 times as long as wide.

C. maculata

Fruit shorter than wide, leaflets 5-10 times as long as wide.

C. mackenziana

Fruit about equal in length and width, leaflets $1\frac{3}{4}$ - $2\frac{1}{2}$ times as long as wide.

C. douglasii

This is probably the first report of *C. maculata* L. from Alaska, although *C. virosa* L. reported by Porsild (2) from Hot Springs on the Tanana River undoubtedly was this species. The author first collected it at Knik on Knik Arm of Cook Inlet in 1931 (1382). In 1935 it was collected at Circle Hot Springs (2616), as again in 1941 (7560). A collection at Hyder in 1939 (5501) is rather immature but seems to be this species. A visit to Manly Hot Springs (also known as Tanana Hot Springs) in 1941 revealed its presence